This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A grounding arrangement ~~in~~ for a system for ECG monitoring in which system some connector elements (14) of ~~a~~ an ECG lead set connector (13) are alternatively used either for recording of ECG signals from measuring electrodes or for grounding of lead wire shields, ~~characterized in that the grounding is performed through~~ said grounding arrangement comprising a current limiting circuit (27) exhibiting non-linear voltage-current characteristics having means for selectively grounding said lead wire shields and means for detecting whether the connector elements are used for recording ECG signals from measuring electrodes or for grounding of lead wire shields.

Claim 2 (canceled)

Claim 3 (original): A grounding arrangement as defined in claim 1, characterized in that the current limiting circuit includes a current-limited voltage source.

Claim 4 (currently amended): A grounding arrangement as defined in claim 3, characterized in that the current limiting circuit ~~exhibits a current limiting function which, when activated, is used~~ is further defined as having means for ~~detection of~~ detecting the addition of a new measuring electrode.

Claim 5 (currently amended): A grounding arrangement ~~in~~ for a system for ECG monitoring in which system some connector ~~element~~ elements (14) of a lead set connector (13) are alternatively used either for recording of ECG signals or for grounding of lead wire shields, said grounding arrangement comprising a ~~characterized in that the~~ current limiting circuit ~~consists of~~ comprising passive components, at least one of which exhibits non-linear

voltage/current characteristics, for grounding said lead wire shields and for detecting whether said connector elements are used for recording ECG signals from measuring electrodes or for grounding of said lead wire shields.

Claim 6 (previously presented): A grounding arrangement as defined in claim 1, characterized in that there are individual current limiting circuits for each connector element.

Claim 7 (currently amended): A grounding arrangement as defined in claim 1, ~~characterized in that~~ wherein said current limiting circuit comprises a single current limiting circuit is used for more than one connector element.

Claim 8 (previously presented): A grounding arrangement as defined in claim 1 ~~characterized in that~~ wherein said current limiting circuit comprises a one single current limiting circuit is used for all connector elements.

Claim 9 (currently amended): A grounding arrangement as defined in claim 4, characterized in that the current limiting circuit (27) includes a detecting circuit (32) having an input coupled to the lead set connector for detection of the addition of new measuring electrodes.

Claim 10 (original): A grounding arrangement as defined in claim 9, characterized in that the detecting circuit (32) is a comparator.

Claim 11 (currently amended): A grounding arrangement as defined in claim 9, characterized in that the detecting circuit (32) is ~~a~~ an analog-to-digital converter.

Claims 12-15 (cancelled)

Claim 16 (previously presented): A grounding arrangement as defined in claim 5, characterized in that there are individual current limiting circuits for each connector element.

Claim 17 (currently amended): A grounding arrangement as defined in claim 5, ~~characterized in that~~ wherein said current limiting-circuit comprises a single current limiting circuit is used for more than one connector element.

Claim 18 (currently amended): A grounding arrangement as defined in claim 5, ~~characterized in that~~ wherein said current limiting circuit comprises a single current limiting circuit is used for all connector elements.